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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/390,051	09/03/1999	GEOGGREY S.M. HEDRICK	3190-31	6250

7590 12/16/2003

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NEW YORK, NY 10176

EXAMINER

NGUYEN, FRANCIS N

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 12/16/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/390,051

Applicant(s)

HEDRICK, GEOGGREY S.M.

Examiner

FRANCIS NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/26/2003, 10/24/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 13-21 is/are allowed.
- 6) ☒ Claim(s) 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16. 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. The amendments filed on 1/31/03 and 10/24/2003 (Preliminary Amendment C) are entered. The IDS filed on 10/24/2003 has been considered.

It is noted by the examiner that Preliminary Amendment C still lists claims 11-12, which were canceled per Amendment filed on 11/19/2001.

Continued Prosecution Application

2. The request filed on 3/26/2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/390,051 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Factor (US Patent 6,281,810) in view of Wright (US Patent 5,668,542).

As to **claim 22**, Factor teaches a display system (instrument panel video display 10, column 2, lines 65-66) for displaying, to an aircraft flight crew in an aircraft cockpit, aircraft flight data (information from sensors 26, column 3, lines 47-48) for use by the flight crew in operating the aircraft based on flight data information input to the display system, said system comprising a

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display screen (screen 44, column 4, lines 25-26) for presenting to the flight crew an image representing the flight data (electronic information, column 3, lines 50-520, the flight data image being presented on the display screen (sensor data, column 3, lines 60-67).

a first independent processor (computer 30 shown in figure 1 receiving data from sensors 26, column 4, lines 46-47) for receiving the flight data information supplied to the display system and operable for generating a first output to the display screen (associated graphics hardware , column 4, lines 46-47, this hardware drives image signal to be displayed on screen 44 shown in figure 1) for illuminating a first subset of said plural pixels at said each location (figure 1 shows image on screen 44 corresponds to the claimed plural pixels) ;

a second independent processor (second computer 30 receiving information from sensors 26 and associated graphics hardware, column 4, lines 46-47) for receiving the flight data information supplied to the display system and operable for generating a second output to the display screen, concurrent with said first output of the first processor, for illuminating a second subset of said plural pixels at said each location (figure 1 shows image on screen 44 corresponds to the claimed plural pixels) .

Factor teaches sanity check on the data , computer can alert pilot of sensor error , computer error (column 4, lines 7-11), concurrent illumination by the first and second processors of plural pixels at said each location (figure 1 shows the image on screen 44 originated from two optics projectors 46 having each an illumination device 46).

However, Factor fails to teach a presentation color selectively formed at each of multiple locations on the displayed screen. Wright teaches a presentation color selectively formed at each of multiple locations on the display screen (individual display segments 12 shown in

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colors green , yellow , red , column 3, lines 5-18, figure 3). **It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus Factor then implement color presentation selective at each of multiple locations on the display screen as taught by Wright to obtain the apparatus Factor modified by Wright because it would make it easy for the flight crew to intuitively acknowledge information/status of aircraft systems.**

As to claim 23, Factor teaches a method of displaying(displaying on instrument panel video display 10, column 2, lines 65-66), to an aircraft flight crew on a display screen in an aircraft cockpit, an image of aircraft flight data (information from sensors 26, column 3, lines 47-48) presented to the flight crew on the display screen, said method comprising the steps of:

supplying flight data information to a first independent processor (first computer 30 receiving information from sensors 26) for generating the flight data image as a first output (associated graphics hardware , column 4, lines 46-47, this hardware drives image signal to be displayed on screen 44 shown in figure 1) for illuminating a first subset of the plural pixels at said each location (image on screen 44 corresponds to the claimed plural pixels);

supplying flight data information to a second independent processor (second computer 30 receiving information from sensors 26) for generating the flight data image as a second output (second computer 30 with associated graphics hardware , column 4, lines 46-47, this hardware drives second image signal to be displayed on screen 44 shown in figure 1) for illuminating a second subset of the plural pixels at said each location(image on screen 44 corresponds to the claimed plural pixels);

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concurrently supplying the first and second outputs to the display screen so as to concurrently illuminate the first and second subsets of the plural pixels at said each location of the display screen (figure 1 shows the image on screen 44 originated from two optics projectors 46 having each an illumination device 46).

However, Factor fails to teach a presentation color selectively formed at each of multiple locations on the displayed screen. Wright teaches a presentation color selectively formed at each of multiple locations on the display screen (individual display segments 12 shown in colors green , yellow , red , column 3, lines 5-18, figure 3). **It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the method Factor then implement color presentation selective at each of multiple locations on the display screen as taught by Wright to obtain the method Factor modified by Wright because it would make it easy for the flight crew to intuitively acknowledge information/status of aircraft systems.**

Allowable Subject Matter

4. Claims 1-10, 13- 21 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 1-10, 13-18, none of prior art teaches when either of a first and second sets of color data is not output to a location on a flat panel display, the indicia is in a color different from another color, said another color different from the colors of said first and second sets of color data.

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As to claims 19-21, none of prior art teaches color change of indicia , normally displayed in a second color different from first color of at least one of the simulated aircraft instruments, indicates reducing operating integrity of display data.

CONCLUSION

6. The prior art made of record but not relied upon is pertinent to Applicant's disclosure.

US Patent	Ravid et al.	5,559,528
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US Patent	Yount	4,622,667
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US Patent	Rowson et al.	6,067,484
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US Patent	Jones	4,734,687
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US Patent	Stephens et al.	5,490,783
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Reference Ravid et al. is made of record as it discloses a display having redundant segments.

Reference Yount is made of record as it discloses a digital fail operational automatic flight control system utilizing redundant dissimilar data processing.

Reference Rowson et al. is made of record as it discloses a differential GPS landing system using integrity monitor processor.

Reference Jones is made of record as it discloses a processing system using multiple processors.

Reference Stephens et al. is made of record as it discloses a flight simulator having electronic display controls.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **FRANCIS N NGUYEN** whose telephone number is **703 308-8858**. The examiner can normally be reached during hours 8:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached at 703 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service whose telephone number is (703) 306-0377.



FRANCIS NGUYEN

December 10th, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600